



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,864	02/20/2004	Jeremy E. San	1248-35	5064
27562	7590	07/29/2004	EXAMINER	
NIXON & VANDERHYE, P.C. 1100 N. GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201			MOSSER, ROBERT E	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/781,864	SAN ET AL. <i>CR</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert Mosser	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-22 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-22 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____.   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2-20-2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 9 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what the phrase "enhanced functionality" is intended to encompass.

It is unclear what the phrase "high capacity" is intended to encompass.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (US 4,799,635) in view of Yamamuro et al (US 4,908,610).

Nakagawa teaches a video game system including:

- A main processing unit (24, 28);
- Picture processing circuitry for processing and displaying images on a display screen (26);
- User controls for inputting user control signals (14a, 14b);
- Security processing circuitry (34,30);
- The inclusions of a read only memory (ROM) cartridge or optical disk for storing video data (16, 42, 44, Fig 8-10, & Col 9:59-64); and,
- A port for receiving removable device (20).

Nakagawa however is silent regarding the use of video compression/decompression devices in association with the disclosed invention. In a related application Yamamuro et al teaches the use of video compression/decompression for the display of color images (Col 1:29-34 & 1:48-56).

It would have been obvious to one of ordinary skill in the art at the time of invention to have utilized the video compression/decompression as taught by Yamamuro in the invention of Nakagawa in order to reduce the amount of memory required to store video images and thereby reduce the cost of device manufacture.

The invention of Nakagawa/Yamamuro is silent regarding the incorporation of an ALU unit as so described however this feature is an implicit component of modern

processors as well as of processors of the time of invention. As the ALU is responsible for the mathematical functionality of a processor it is required for the processing of any looped program where the addition/subtraction of the file pointer and/or presence of a counter would require the mathematical operations provided for by an ALU.

Claims 7, and 9-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (US 4,799,635) in view of Yamamuro et al (US 4,908,610) in further view of Loffredo (US 5,016876).

In addition to the features of the Nakagawa/Yamamuro invention taught in the preceding rejection Nakagawa teaches the use of buffer memory but, not a cache memory and associated controllers verbatim (Figure 4). In related application however Loffredo teaches the use of a instruction cache memory with associated controllers for use with a video game system (Figure 1 & Col 4:55-62).

Claim 8, is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (US 4,799,635) in view of Yamamuro et al (US 4,908,610) in further view of Rosenthal (US 4,053,740).

Alternatively from the rejection of claim 8 provided for above based on implicit functionality Rosenthal teaches the inclusion of an ALU (3:59-70) connected to the system bus. It would have been obvious for one of ordinary skill in the art at the time of invention to have incorporated the ALU of Rosenthal into the invention

Nakagawa/Yamamuro in order to allow the game system of Nakagawa/Yamamuro to handle address pointer updating as required for non-static processing.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Mosser whose telephone number is (703)-305-4253. The examiner can normally be reached on 8:30-4:30 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H Banks can be reached on 703-308-1745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

REM



JESSICA HARRISON  
PRIMARY EXAMINER